

**Amendment 91-226****Flight Recorders and Cockpit Voice Recorders****Adopted: October 4, 1991****Effective: October 11, 1991****(Published in 56 FR 51618, October 11, 1991)**

**SUMMARY:** This interim rule amends the Federal Aviation Regulations to allow part 91 operators to continue flight, or ferry certain aircraft, in the event that the flight recorder (FR) and/or cockpit voice recorder (CVR) is inoperable. This change provides part 91 operators similar relief to that afforded air carriers and commercial operators operating under part 91 of the Federal Aviation Regulations. Additionally, this change permits part 91 operators to operate for up to 15 days with an inoperative FR or CVR. These amendments are intended to prevent part 91 operations from being forced out of service unnecessarily.

**DATES:** This interim rule is effective on October 11, 1991. Comments must be received on or before January 13, 1992. This interim rule expires on April 13, 1992.

**ADDRESSES:** Comments on this interim rule should be sent to the Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-10), Docket No. 26666, 800 Independence Avenue, SW., Room 915G, Washington, DC 20591. Comments may be inspected in Room 915G between 8:30 a.m. and 5:00 p.m., weekdays, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Thomas Glista, Regulations Branch (AFS-850), General Aviation and Commercial Division, 800 Independence Avenue, SW., Washington, DC 20591; telephone: (202) 267-8150.

**SUPPLEMENTARY INFORMATION***Comments Invited*

This interim rule is being issued without prior notice or opportunity for public comment. However, in accordance with the Regulatory Policies and Procedures of the Department of Transportation, an opportunity for public comment on this interim final rule is provided. This interim rule is being issued with an expiration date of April 13, 1992. Interested persons are being afforded time to comment before the FAA makes a final determination on this issue. Delay of this rule would cause part 91 operators to be unjustly burdened by the implementation of § 91.609 on October 11, 1991, since reasonable relief from the rule would otherwise not be available.

Interested persons are invited to submit comments in triplicate to the address listed under the caption "ADDRESSES" above. All comments will be available for examination by interested persons in the Rules Docket. This amendment may be changed in response to comments received on this interim rule.

Commenters who want the FAA to acknowledge receipt of comments submitted on this interim rule must submit a pre-addressed, stamped postcard with their comments on which the following statement is made: "Comments to Docket No. 26666." The postcard will be date-stamped by the FAA and returned to the commenter.

*Availability of this Interim Rule*

Any person may obtain a copy of this interim rule by submitting a request to the Federal Aviation Administration, Office of Public Affairs, ATTN: APA-200, 800 Independence Avenue SW., Washington, DC 20591, or by calling the Office of Public Affairs at (202) 267-3484. Communications must identify the docket number (Docket No. 26666) of this amendment. Persons interested in being placed on a mailing list for future notices should request a copy

of Advisory Circular 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

### *Background*

Section 91.609 of the Federal Aviation Regulations (FAR) requires certain part 91 operators to install an approved flight recorder (FR) and operate it continuously from takeoff to landing. Furthermore, the rule requires that approved cockpit voice recorders (CVR) be installed and operated continuously on the aircraft of certain part 91 operators. Strict compliance with § 91.609 would compel these part 91 operators to land immediately upon an FR or CVR becoming inoperative. The rule, as written, would prevent operators from being able to ferry an aircraft to a location where the equipment could be repaired or replaced, from doing an airworthiness flight check, or from ferrying a newly-acquired aircraft for the purpose of having a FR or CVR installed.

### *History*

The FAA issued Amendment Nos. 91-199, 121-191, 125-8, and 135-23 on March 18, 1987 (52 FR 9622, March 25, 1987), to upgrade flight recorder standards for certain airplanes. The amendments require that all airplanes type certificated before September 30, 1969, and operated under part 121 be equipped with a six-parameter digital flight recorder by May 26, 1989, and that these recorders be upgraded to record 11 parameters of information by May 26, 1994.

The FAA issued Amendment Nos. 23-35, 25-65, 27-22, 29-25, 91-204, 121-197, 125-10, and 135-26 on June 30, 1988 (53 FR 26134, July 11, 1988), to require digital flight data recorders and cockpit voice recorders to be installed in a broad range of airplanes and rotorcraft operated by air carriers and commuter airlines, as well as in selected aircraft operated in general aviation. Compliance is required by October 11, 1991. The amendments respond to legislation that required the FAA to amend its FR and CVR requirements in accordance with recommendations from the National Transportation Safety Board. The intent of the amendments was to provide more information to accident investigators in determining the causes of accidents and the measures needed to correct the causes.

Section 91.609 of the FAR currently provides relief to holders of air carrier or commercial operator certificates to operate their aircraft under certain conditions with the FR and/or CVR removed or inoperative. Amendment 91-204 (53 FR 26134, July 11, 1988) expanded the installation requirements for the FR and CVR to include certain U.S. civil-registered aircraft operated under part 91 of the FAR. Similar relief was not provided for part 91 operators in § 91.609. This interim rule is being issued to correct this situation. This interim rule is intended to provide part 91 operators with relief similar to that accorded to holders of air carrier and commercial operator certificates.

On September 27, 1989, the National Business Aircraft Association (NBAA) petitioned for an exemption from §§ 91.609 (c) and (d)(2) [formerly §§ 91.35(c) and (d)(2)] of the FAR to permit its members, under certain conditions, to operate under the provisions of § 91.609(a) [formerly § 91.35(a)].

[NOTE: Effective August 18, 1990 (54 FR 34284, August 18, 1989) § 91.35 (a), (c), and (d)(2) were renumbered as § 91.609(a), 91.609(c), and 91.609(d)(2)]

The petition requested that NBAA members be permitted to operate those U.S.-registered multiengine turbine-powered civil airplanes and rotorcraft that are required to have FR's and CVR's while the aircraft's FR and/or CVR is removed temporarily for inspection, repair, modification, or replacement. Additionally, the NBAA requested that its members be permitted to operate their aircraft for a period of not more than 120 days after the FR and/or CVR is initially removed from the aircraft for repair. Approximately 260 comments supporting the petition were received in response to the *Federal Register* publication of the summary of the petition. No comments opposing the petition were received.

On January 23, 1990, Gulfstream Aerospace Corporation petitioned the FAA to amend the requirements of § 91.609. The petition requested that subject to certain conditions, operators

that do not hold an air carrier or commercial operator certificate be allowed to operate under the provisions of §91.609(a) with an FR and/or CVR temporarily removed for inspection, repair, modification, or replacement.

## **General Discussion of this Interim Rule**

### *FR/CVR Requirements*

The FAA has determined that the circumstances cited in the NBAA and Gulfstream Aerospace petitions apply to all part 91 operators. Accordingly, it is appropriate to respond to these petitions through the rulemaking process. Therefore, the FAA is amending §91.609 to permit part 91 operators to continue a flight or ferry certain aircraft with an inoperative FR and/or CVR. Although this rule is not identical to the provisions provided to air carriers and commercial operators, the relief being provided to the part 91 operators is intended to be similar.

Air carriers and commercial operators may:

1. Ferry an aircraft with an inoperative flight recorder or cockpit voice recorder from a place where repair or replacement cannot be made to a place where such can be made.
2. Continue a flight as originally planned, if the flight recorder or cockpit voice recorder becomes inoperative after the aircraft has taken off.
3. Conduct an airworthiness flight test during which the flight recorder or cockpit voice recorder is turned off to test it or to test any communication or electrical equipment installed in the aircraft.
4. Ferry a newly acquired aircraft from the place where possession of it was taken to a place where the flight recorder or cockpit voice recorder is to be installed.
5. Use an aircraft's minimum equipment list (MEL) to continue flight operations. The normal relief provided by most MEL's allows a flight recorder to be inoperative if the cockpit voice recorder is operative and vice versa when both are required to be installed. However, CVR and FR equipment are classified as Category A items on an MEL, and Category A items are permitted to be inoperative for a maximum of 3 flight days.

The relief provided by this rule change permits part 91 operators:

1. To ferry an aircraft with an inoperative flight recorder or cockpit voice recorder from a place where repair or replacement cannot be made to a place where they can be made.
2. To continue a flight as originally planned, if the flight recorder or cockpit voice recorder becomes inoperative after the aircraft has taken off.
3. To conduct an airworthiness flight test during which the flight recorder or cockpit voice recorder is turned off to test it or to test any communication or electrical equipment installed in the aircraft.
4. To ferry a newly acquired aircraft from the place where possession of it was taken to a place where the flight recorder or cockpit voice recorder is to be installed. In addition, this rule will permit a part 91 operator:
5. To operate an aircraft for not more than 15 days while the flight recorder or cockpit voice recorder is inoperative, provided that the aircraft records contain an entry which indicates the date of failure, and a placard is located in view of the pilot to show that the flight recorder or cockpit voice recorder is inoperative.
6. To operate an aircraft for an additional 15 days provided that the requirements of paragraph 5 are met and certification is made in the aircraft maintenance records that additional time is required to complete repairs or obtain a replacement unit. At no time does this amendment permit the aircraft to be operated for more than 30 days with the flight recorder or cockpit voice recorder inoperative.

### *Additional Relief*

Although the relief provided by this rule for part 91 operators is not identical to that provided for air carriers and commercial operators, the FAA has had to consider the fact that part 91 operators do not normally have the maintenance, repair, and replacement capabilities that air carriers and commercial operators have. Part 91 operators normally have only one maintenance base, whereas air carriers and commercial operators normally have numerous maintenance bases at which their CVR's and FR's may be repaired or replaced. Air carriers' and commercial operators' maintenance bases normally have a ready supply of spare parts for repairing or replacing CVR's and FR's. Air carriers and commercial operators normally have a larger fleet of aircraft in which the CVR's and FR's can be moved from one aircraft to another. Part 91 operators, however, normally have only one or two aircraft. Therefore, if a CVR or FR becomes inoperative on a part 91 operator's aircraft, it may result in the aircraft being grounded for an indefinite period of time. The FAA has determined that this grounding is not necessary and the possible operational and financial burden on these operators is unacceptable. The relief provided for part 91 operators by this amendment is reasonable. The FAA does not anticipate that a large number of aircraft will be flying without a functioning FR and/or CVR, and in view of the excellent safety record of multiengine, turbine-powered airplanes and rotorcraft, the probability of one of these aircraft being involved in an accident is small.

The NBAA stated that due to the expense of an FR or CVR (FR = \$25,000 to \$30,000 each; CVR = \$10,000 each), one would not expect part 91 operators to purchase spares in case of failure, and few, if any, maintenance facilities catering to part 91 operators would stock spare units. There is merit in this statement, and the FAA finds that it is appropriate to provide additional relief to part 91 operators to operate for a reasonable period of time with the FR and/or CVR removed for repair. However, the FAA has determined the 120-day period requested by the NBAA is excessive and could compromise the intent of the rule. The FAA surveyed manufacturers of FR's and CVR's. Current estimates by these manufacturers indicate that 15 days is the average time needed to accomplish most repairs or to insure the availability of a replacement unit. Accordingly, this change permits part 91 operators who do not hold an air carrier or commercial operator certificates to operate an aircraft with an inoperative FR and/or CVR for 15 days. This change also permits aircraft to be operated for an additional 15 days (for a total of 30 days) provided that certification is made in the aircraft maintenance records that additional time is required to complete repairs or obtain a replacement unit. This certification must be made by a certificated pilot or mechanic. At no time may the aircraft be operated for more than 30 days with the FR or CVR inoperative.

### *Special Requirements*

The NBAA also suggests, as an additional safeguard to aviation safety, that provisions be included to require an entry in the airplane/rotorcraft records that include the date the equipment became inoperative, and that a placard be located in view of the pilot to show that the FR and/or CVR has not been installed or is inoperative. The FAA has determined that these suggestions have merit, and these provisions are included in this interim rule.

### *Benefit/Cost Comparison*

Executive Order 12291, dated February 17, 1981, directs Federal Agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each proposed change outweigh potential costs. Accordingly, the FAA has examined the benefits of this interim rule in an effort to identify and quantify benefits and costs. As a result of that examination, the agency has determined that the benefits are positive, but minimal, and that the costs are negligible.

The major benefit of this interim rule is that part 91 operators are not required to land immediately upon the loss of an FR or CVR, nor are they prevented from ferrying an aircraft to a location where such equipment can be repaired or installed. As indicated above, the operational and financial burden of being prevented from operating due to the lack of a functioning CVR or FR is unduly burdensome for part 91 operators. As a practical matter, it makes economic sense to provide a reasonable time to repair or replace malfunctioning equipment.

Based on information provided by manufacturers and repair facilities, this rule provides sufficient time so that equipment can, in virtually all cases, be repaired or replaced in the time provided. On the other hand, providing a longer amount of time (such as the requested 120 days), could unnecessarily result in the loss of vital safety information in the event of an accident, would not be justified economically, and would be contrary to the underlying purpose of requiring these devices. Furthermore, since the FAA routinely authorizes aircraft to be ferried with an inoperative FR or CVR, another benefit of this amendment is to relieve part 91 operators from having to complete paperwork for requesting ferry permits. Therefore, the FAA has determined this interim rule will result in a positive but minimal benefit.

With respect to costs, there is a requirement that a placard be located in view of the pilot whenever an FR or CVR is temporarily out of service. The placard will state that the equipment is not installed or is inoperative. The estimated cost of such a placard is \$25. This cost is considered negligible when compared to the savings realized by temporarily permitting further flights while the equipment is inoperative.

Another potential cost would be that, in the event of an accident, an inoperative FR or CVR would not be available to provide information to assist in determining the cause of the accident. However, the FAA estimates that few aircraft will be flying without a functioning FR or CVR. Furthermore, the probability of one of these aircraft being involved in an accident is extremely small, so the potential cost is estimated to be negligible and acceptable to the FAA. Also, since most flights that are affected by this interim rule would be flying under a ferry permit in the absence of this rule, the incremental cost of allowing flights without a ferry permit is even less.

The FAA has determined that this interim rule is cost-beneficial, but because both benefits and costs are minimal, a regulatory evaluation was not prepared for placement in the docket.

#### *Reason for Immediate Adoption*

As stated above, strict enforcement of the current regulations would compel part 91 operators to land immediately upon loss of an FR or CVR, and would prevent operators from ferrying an aircraft to a location where the equipment could be repaired or replaced, from doing an airworthiness flight check, and from ferrying a newly-acquired aircraft for FR or CVR installation. This could be a substantial burden on part 91 operators and have a disruptive effect on the general aviation community. The FAA did not intend to exclude part 91 operators from the kind of relief that the FAR currently provides to holders of air carrier or commercial operator certificates. The FAA intends for this interim rule to provide similar relief.

As noted, this action will not have any adverse effect on safety. The operation of FR and CVR equipment does not effect the operation of the aircraft. The purpose of FR and CVR equipment is to assist persons performing investigations of accidents or other incidents for which the recorded information might be useful. This action provides relief to part 91 operators from the FR and CVR requirements that become effective on October 11, 1991. The relief provided by this interim rule is intended to be similar to that already available to air carriers and commercial operators. Because a delay in implementing this interim rule would cause an unnecessary burden on part 91 operators, the FAA has determined that notice and public procedure hereon are impracticable.

Furthermore, since part 91 operators must comply with the FR and CVR requirements of §91.609 by October 11, 1991, the relief provided by this amendment should be available at that time. Accordingly, the FAA has determined that good cause exists to make this interim rule effective in less than 30 days.

Although this action is an interim rule, interested persons may comment by submitting such written data, views, or arguments as they may desire. Comments are specifically invited on the overall regulatory, economic and environmental aspects of the rule that might suggest a need to modify the rule. Factual information that supports the commenter's ideas and suggestions is especially helpful in determining whether modification of the rule is necessary. Comments received on or before January 13, 1992, will be considered prior to the FAA making any final determination on this matter, and this rule may be amended in light of the comments

received. Comments should be submitted pursuant to the procedure outlined in the "Comments Invited" section above.

Because this amendment was not preceded by notice and an opportunity for public comment, this rule is considered interim and will expire on April 13, 1992. Before that date, the FAA intends to review all comments received on or before January 13, 1992, review the rule for any changes that may be necessary in light of the comments received, and publish a disposition of those comments and a final rule.

#### *International Trade Impact Analysis*

The FAA finds that the negligible costs that may be imposed by this interim rule will not have an impact on international trade, since it would be applicable to all airplanes operating under part 91.

#### *Regulatory Flexibility Act Determination*

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 et seq.) (RFA) was enacted to ensure that small entities are not unnecessarily or disproportionately burdened by Government regulations. The RFA requires a Regulatory Flexibility Analysis if a rule has a significant economic impact, either detrimental or beneficial, on a substantial number of small entities. FAA Order 2100.14A, "Regulatory Flexibility Criteria and Guidance," establishes threshold cost values and small entity size standards for complying with RFA review requirements in FAA rulemaking actions.

The small entities that could be affected by this rule are part 91 operators with nine or fewer aircraft. An operator with nine aircraft each with the FR or CVR out for repair would be required to buy a total of nine placards at \$25 each for a total cost of \$225. This cost is well below the \$3300 threshold cost for unscheduled aircraft operators shown in FAA Order 2100.14A. Therefore, the FAA has determined that this interim rule will not have a significant economic impact on a substantial number of small entities and that a Regulatory Flexibility Analysis is not required.

#### *Federalism Implications*

The amendment adopted herein does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this amendment does not have sufficient federalism implications to warrant preparation of a Federalism Assessment.

#### *Paperwork Reduction Act*

In accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.), there are no requirements for information collection associated with this rule.

#### *Conclusion*

For the reasons discussed in the preamble, the FAA has determined that this interim rule is not major under Executive Order 12291. However, it is significant under the Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979) due to substantial public interest. It is certified that under the criteria of the Regulatory Flexibility Act this amendment will not have a significant economic impact, positive or negative, on a substantial number of small entities. Because of the negligible costs resulting from this rule, the FAA has determined that the expected impact of these regulations is so minimal that they do not warrant a full regulatory evaluation.

### **THE AMENDMENT**

In consideration of the foregoing, 14 CFR Part 91 of the Federal Aviation Regulations is amended effective October 11, 1991.

The authority citation for part 91 continues to read as follows:

*Authority:* 49 U.S.C. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502, 1510, 1522, and 2121 through 2125; Articles 12, 29, 31, and 32(a) of the Convention on International Civil Aviation (61 Stat. 1180); 42 U.S.C. 4321 et seq.; E.O. 11514; 49 U.S.C. 106(g) (Revised, Pub. L. 97-449 January 12, 1983).

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